



Office of the Associate Administrator for Research and Acquisitions

PERFORMANCE PLAN FOR Fiscal Year 2001

Please visit our public web site:

<http://www.faa.gov/ara/perform/index.html>

For employees who have access to the FAA internal web site:

<http://intranet.faa.gov/ara/perform/perform.html>

U.S. Department of Transportation
Federal Aviation Administration

October 1, 2000

Fellow ARA Employees:

I am pleased to present the Fiscal Year (FY) 2001 ARA Performance Plan. This plan includes 8 performance goals that we will pursue in the coming years. The first 5 goals directly support the FAA mission goals of Safety, Security, and System Efficiency. The remaining goals focus on ensuring that ARA has the capability to continuously improve its performance and meet the changes and challenges of the future.

As you know, our Performance Plan is an important document. For ARA organizations, it will be used to guide the development of lower-level goals and objectives. For employees, the plan contains long-term objectives and near-term implementation plans that should guide development of individual performance plans and daily decision-making. The plan also provides the strategic framework for employee training and development priorities.

For our customers and partners, the ARA Performance Plan represents our commitment to provide products and services that meet the current and future needs of the FAA, the aerospace industry, and the flying public. The plan provides all of our stakeholders with a tool they can use to measure our success as an organization.

Many thanks to the people who helped develop this plan, and to all the ARA employees whose dedication and expertise will make it a reality.

Sincerely,

Steven Zaidman
Associate Administrator for Research and Acquisitions

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INTRODUCTION

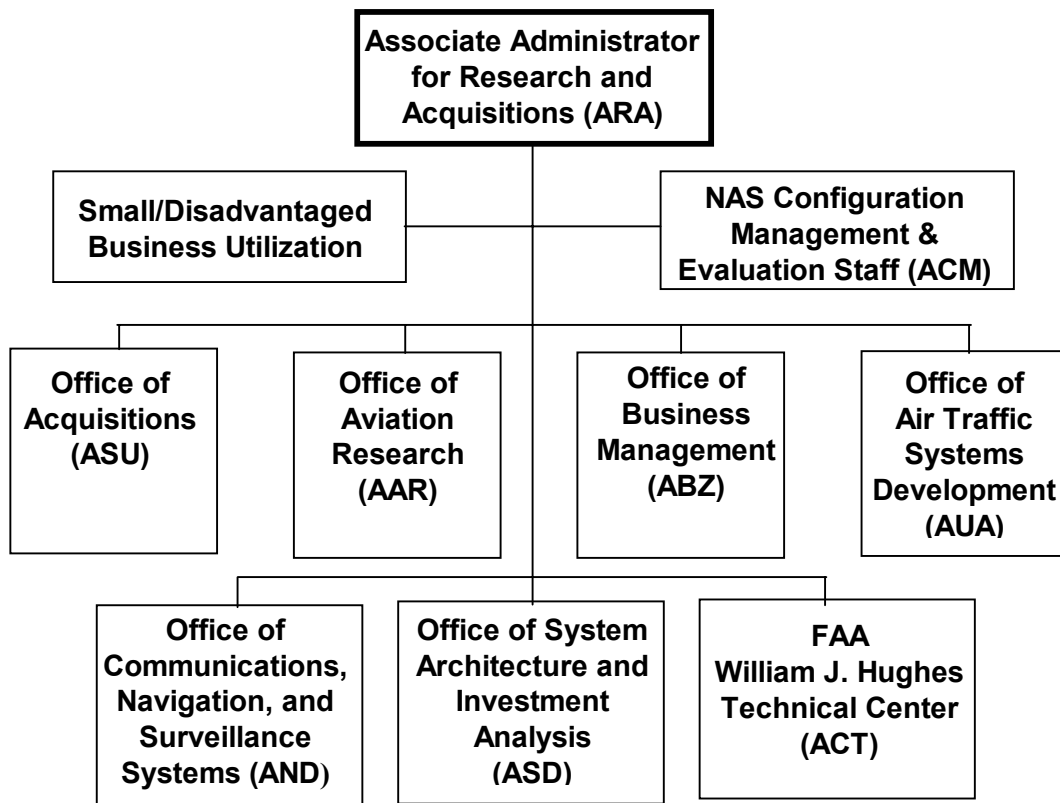
The Federal Aviation Administration (FAA) has the responsibility for providing a safe, secure, and efficient global aviation system that meets the needs of a wide range of customers and stakeholders. The FAA's six primary lines of business, and a number of staff offices, work together to ensure that the agency meets its responsibilities and provides the safest, most efficient and responsive aviation system in the world.

The Office of the Associate Administrator for Research and Acquisitions (ARA) has the primary responsibility of ensuring that the FAA has the research and technology base to meet its current mission requirements

and to position the agency to meet the challenges of the future. ARA has a budget of approximately \$1.6 billion, a workforce of approximately 2,000, and is organized as shown in Figure 1.

ARA's 2001 Performance Plan includes goals that extend through FY 2007. The strategies and activities presented in the plan reflect ARA's 2001 priorities for moving toward accomplishment of these long-term goals. ARA's performance management program reinforces accountability for achieving these priorities by linking individual performance objectives to the organizational performance goals.

Figure 1: ARA Organization



ARA'S WORKFORCE

ARA's success in achieving its performance goals is primarily contingent upon its ability to attract, retain, and continually develop a world-class workforce. To support the workforce in this endeavor, ARA will continue its transformation to a learning organization with standardized training curricula for key, corporate roles. A strong ARA workforce is essential to the FAA's success in providing affordable and exceptional products and services to its customers, when and where they need them. Two of the performance goals in this plan are directly related to strengthening the management processes and work environment that support ARA's functioning as a high-performance organization.

Currently, ARA employs approximately 2,000 engineering, managerial, technical, scientific, professional, and administrative personnel located in Washington, D.C., and the William J. Hughes Technical Center near Atlantic

City, New Jersey. This multidisciplinary workforce supports all aspects of aviation from basic research to the development of new products for aviation safety inspectors, aviation security inspectors, and air traffic controllers. It also includes critical research, test and evaluation, and National Airspace System (NAS) support activities, to assist ARA and other organizations both within and outside of the FAA.

Approximately one-half of ARA's workforce, composed of employees from throughout the organization, works directly in partnership with members from FAA's operational lines of business as part of Integrated Product Teams (IPT's). These IPT's were created to increase the effectiveness and efficiency of FAA's efforts to modernize the civil aviation system.

ARA'S SERVICES

ARA is a technically diverse organization providing a range of services, either directly or in partnership with other FAA organizations. Within the

FAA, ARA is responsible for providing leadership in the delivery of the following nine services:

SERVICE AREA	DESCRIPTION OF FUNCTIONS AND PRODUCTS
Lifecycle Acquisition Management	Acquisition of NAS program products, development of the NAS Architecture, systems engineering support, investment analyses, operations research support, program management, configuration management, and program evaluation.
Research and Development (R&D)	Research program planning, R&D program management, execution of research programs, and coordination of national and international research efforts across U.S. and foreign government, academic, and industrial organizations.
Acquisition Policy	Services and functions related to the role of FAA's Acquisition Executive including: development, dissemination, and training in acquisition and procurement policy.
Contracting	Contract award and management support for FAA and other government organizations; and procurement quality assurance.
Information Technology (IT) Services	Mainframe computing services, enterprise network, electronic messaging and internet connectivity design, implementation and operational support, user desktop support (Help Desk) services, and management of IT support services contracts.
Information Security	Vulnerability assessments and penetration tests, basic security awareness training, and system engineering support.
Budgeting	Technical assistance and coordination of budget planning and development activities related to FAA's Facilities and Equipment (F&E) and Research Engineering, and Development (R,E&D) appropriations.
Facility Operation	The full range of planning, operations, and maintenance activities for FAA's headquarters Federal Office Building (FOB) 10A and the William J. Hughes Technical Center.
Small Business Outreach/ Monitoring	Development and implementation of the policies and outreach activities that form the FAA's small business program (e.g., supporting small business conferences, forums, and seminars).

ARA'S PARTNERS AND CUSTOMERS

Partners

In delivering a number of its services, ARA works in partnership with other FAA organizations such as Air Traffic Services (ATS), Regulation and Certification (AVR), Civil Aviation Security (ACS), Airports (ARP), and the Office of International Aviation (AIA).

These partnerships represent the avenue through which ARA's lifecycle acquisition management and research and development services are delivered to the FAA's external customers.

In these partnerships, ARA provides the scientific, engineering, and management expertise needed to acquire or develop the technology, systems, and research data that support efficient delivery of FAA services (e.g., air traffic control,

civil aviation security, development of avionics standards, and development and enforcement of aviation regulations). ARA's partners contribute the operational expertise needed to ensure successful product development, deployment, and maintenance.

The performance goals and indicators for service areas in which ARA works collaboratively with FAA's operational lines of business are designed to measure ARA's contributions to these partnerships. The ARA performance goals in these areas directly support the FAA's performance goals for safety, security, and efficiency of civil aviation system operations.

Customers

Many of ARA's internal FAA partners in the lifecycle acquisition management and R&D areas are also direct users of other ARA services such as budgeting support on F&E and R,E&D programs, facility operations, or contracting support. In fact, the entire FAA receives some of ARA's services such as information technology, contracting, and facility operations services.

ARA also has a limited number of direct, external customers, including the Department of Transportation (DOT), the Department of Defense (DOD), the aviation industry, and small businesses.

Both DOT and DOD are customers that use FAA's contracting services. The aviation industry is a customer for FAA R&D products including formal technology transfer programs. Small businesses and small businesses owned and controlled by socially and economically disadvantaged individuals (SEDB's) are customers for outreach programs developed and administered by ARA. These programs support FAA and DOT goals for economic growth in the small business communities.

THE CHALLENGE TO FAA AND ARA

Over the next decade, air travel in the United States is expected to increase by 40 percent, from 665 million to 1 billion passengers by the year 2010. Furthermore, the transition to a satellite-based communications, navigation, and surveillance system will hasten the globalization of the aviation industry. The evolution toward increased operational demand, the diversity of aircraft, changing technology, and the

globalization of the airline industry will challenge the FAA and ARA to maximize safety, while increasing the capacity and efficiency of the nation's aviation system.

Another fact of life for ARA is that even as the need to serve the flying public grows, our personnel and financial resources will continue to be stretched.

ARA'S MISSION AND VISION

ARA Mission

To provide research, development, and acquisition for products and services that enable the FAA to enhance the safety and security of the NAS and satisfy current and future operational needs of the U.S. civil aerospace system for national and international operations.

ARA Vision

To be a world class acquisition and technology organization, universally recognized as the leader and expert in system acquisition, research, and application of aerospace technologies. This is achieved by working together as a positively motivated, diverse, involved, and informed workforce.

To support the accomplishment of this vision, ARA is committed to continuing the implementation and development of the Acquisition Management System (AMS). We will continue to strive for reductions in acquisition cycle time and costs. In support of the AMS, ARA has implemented a number of innovative human capital management programs. These programs are designed to increase ARA's human intellectual capital and reinforce individual and team performance contributing to the accomplishment of ARA's performance objectives. ARA's integrated human capital management program includes workforce development, performance

management, and compensation components.

Our organization is committed to working with the other lines of business to continue with the implementation of the Integrated Product Development System (IPDS). The IPDS uses IPT's to promote a collaboration of disciplines from across FAA to integrate and concurrently apply necessary processes and expertise needed to speed the delivery of products and services that satisfy our customers' requirements.

The effect of all of our initiatives, whether in human capital management, acquisition reform, or resource

management, will be significant. We are changing the way we do business and we are changing our organizational culture. The end result will be a high-

performance organization providing services and technology that will best serve our customers, the flying public, the aviation industry, and our nation.

ARA'S PERFORMANCE GOALS

The eight performance goals described on the following pages represent the results ARA will achieve in implementing the vision developed by the ARA Management Team. The performance goals are organized according to the following Performance Areas, which, in turn, support higher level FAA and DOT performance goals.

- **Safety**
- **Security**
- **System Efficiency**
- **Enabling Goals**

PERFORMANCE AREA: SAFETY

FAA's performance goal for Safety is **"By 2007, reduce the U.S. aviation fatal accident rate per aircraft departure, as measured by a three-year moving average, by 80 percent from the three-year average for 1994-96."** The agency will employ broad strategies to prevent aviation accidents such as addressing recurrent causes, sharing safety information, and improving certification and surveillance. Key corporate projects in the Safety Performance Area include Safer Skies, Safe Flight 21, Global Positioning System (GPS) Implementation, and NAS Modernization Safety Assessment. **ARA has two safety goals: Aviation Safety and Human Factors.**

❶ Aviation Safety

In support of FAA's mission goal related to system safety, ARA will:

Contribute to the FAA goal to reduce the fatal aviation accident rate 80% by 2007 as compared to 1994-1996 baseline data.

Progress toward this performance goal will be measured by:

- The average percent reduction in identifiable causes of fatal accidents. Reductions will be measured relative to specific baseline rates developed for each causal factor being studied.
- The percent reduction in a rolling 3-year average fatal accident rate.

The strategies ARA will pursue to accomplish this goal include:

- Identify, develop, and conduct research to improve methods, procedures, and technologies to reduce fatal accident rates due to aircraft structural, mechanical, propulsion, and systems failures.
- Identify, develop, and conduct research to improve methods, procedures, and technologies to reduce fatal accident rates due to operational hazards.
- Identify, develop, and conduct research to improve methods, procedures, and technologies to

enhance human performance in aviation operations.

- Identify, develop, and conduct research to improve methods, procedures, and technologies to increase aviation accident survivability.
- Identify, develop, and conduct research to improve methods, procedures, and technologies to improve safety in airport movement areas.

② Human Factors

In support of FAA's mission goal related to system safety, ARA will:

By 2005, ensure human factors policies, processes, and best practices are integrated in the research and acquisition of 100 percent of FAA aviation systems and applications.

Progress toward this performance goal will be measured by:

- The percentage of systems and applications that satisfy human factors policies, processes, and best practices.

The strategies ARA will pursue to accomplish this goal include:

- Conduct human factors research to provide the knowledge base and foundation for the integration of human factors into the acquisition of FAA systems and applications.
- Apply human factors policies, processes, and best practices through engineering activities and assessments to ensure human factors issues are integrated in FAA acquisitions and applications.

PERFORMANCE AREA: SECURITY

The FAA performance goal for Security is to “**Prevent security incidents in the aviation system.**” To reach this goal the FAA will focus on improving explosive device and weapons detection, compliance with security requirements, and minimizing risk and vulnerability at airports and airway facilities. **ARA has two goals that support this performance area: Information Security and Aviation Security.**

③ Information Security

In support of FAA’s mission goal related to security, ARA will:

By 2005, implement information security measures in ARA-deployed systems to protect critical functions of the NAS from disruptive cyber attacks.

Progress toward this performance goal will be measured by:

- Increase the number of certified (interim or full) ARA-deployed systems in the NAS.

The strategies ARA will pursue to accomplish this goal include:

- In partnership with internal and external organizations, develop and improve a baseline Information System Security (ISS) architecture that reflects NAS-level requirements.
- Deploy post-Joint Resource Council (JRC)-2 ARA systems that satisfy existing ISS requirements in accordance with approved program baseline.
- Deploy pre-JRC2 ARA systems that satisfy evolving FAA ISS policy, NAS ISS requirements, and ISS architecture.
- Enhance ISS of ARA systems by insuring compliance of contractors with personnel security guidance and by training FAA personnel in ISS.

④ Aviation Security

In support of FAA’s mission goal related to security, ARA will:

Improve threat detection and aircraft survivability by identifying, developing, and supporting deployment of equipment capable of performing in an operational environment to achieve the FAA defined level of security through 2005.

Progress toward this performance goal will be measured by:

- The improvement in capability for the screening of passengers and bags for explosives and weapons and a reduction in false-alarm rates and vulnerability.

The strategies ARA will pursue to accomplish this goal include:

- Security Technology Research. In partnership with industry, government agencies, and academia, identify, develop, and improve technologies that will provide the capability to counter defined threats to civil aviation security.
 - Security Technology Acquisition and Deployment Support. Support the purchase and deployment of advanced security equipment effectively in partnership with the aviation industry and in accordance with criteria established by the White House
- Commission on Aviation Safety and Security and the Associate Administrator for Civil Aviation Security.
 - Technology Support. Provide technology and expertise to partners in other governments, industry and other agencies as needed to support their development, testing and acquisition of security equipment. Identify potential long-term technical opportunities for enhancing security against terrorism.

PERFORMANCE AREA: SYSTEM EFFICIENCY

The FAA's performance goal in the area of system efficiency is to **"Provide an aerospace transportation system that meets the needs of users and is efficient in the application of FAA and aerospace resources."** The FAA Strategic Plan Performance Goal that directly affects ARA in this performance area is to reduce the rates of aviation system delays, and especially the volume and equipment delays over which FAA has more direct control, from a 1992-1996 baseline. **To achieve this, the agency will focus on Free Flight, NAS Modernization, and Systems Integration. ARA's contribution to this agency goal is established in its NAS Modernization goal.**

⑥ NAS Modernization

In support of FAA's mission goal related to system efficiency, ARA will:

Develop and deploy those capabilities/systems needed to sustain existing NAS Infrastructure and to increase the safety, capacity, and efficiency of the NAS as defined by the NAS Architecture.

Progress toward this performance goal will be measured by:

- Percent of systems from the list of NAS new capability and sustaining systems scheduled to be deployed by ARA.

The strategies ARA will pursue to accomplish this goal include:

- Institutionalize FAA's life-cycle acquisition processes.
- Improve the planning, development and deployment of capabilities/systems and services. This involves the development, in coordination with internal and

external stakeholders, of an Integrated Schedule Management (ISM) process where every requirement for delivery of a service

or system has a resource-loaded schedule with interim milestones and associated measures of success.

PERFORMANCE AREA: ENABLING GOALS

There are four **enabling goals** in the FAA Strategic Plan that are critical to accomplishing the FAA mission. FAA cannot help achieve a safe, secure, efficient aerospace system without a well-trained, well-managed, diverse work force working to its full capabilities. Continued improvement in the FAA's personnel, acquisition, and financial systems is absolutely essential to meeting the challenges. **ARA supports two of the FAA's enabling goals with three ARA goals: Creating Better Business Results Through the Organization and its People, Continuous Process Improvement, and Major Procurement Program Goals.**

⑥ Creating Better Business Results Through The Organization And Its People

In support of FAA's enabling goals and strategies, ARA will:

By the end of FY 2005, establish a model work environment that directly supports accomplishment of ARA business and performance goals by ensuring that the organization has clear operating values, capable people, and effective leaders.

Progress toward this performance goal will be measured by:

- Our ability to achieve the strategy level measures.

The strategies ARA will pursue to accomplish this goal include:

- Ensure that managers have the ability and information to provide effective leadership.
- Ensure that the right employees are in the right place and that they have the right competencies, information, and tools to do their jobs.
- Ensure that ARA is a world-class, diverse organization, free of harassment and discrimination, where all employees can contribute their talents and skills, by implementing ARA's Model Work Environment Plan.

⑦ Continuous Process Improvement

In support of FAA's enabling goals and strategies, ARA will:

Use process improvement models to implement and institutionalize lifecycle processes that enable high-quality solutions to ARA, FAA, and user needs with predictable cost and schedule, and increasing productivity.

Progress toward this performance goal will be measured by:

- Percentage of teams meeting their planned process improvement milestones.
- Percentage increase in the number of teams extending their process improvement capability.

- Percentage increase in the number of teams achieving increased process improvement maturity.

The strategies ARA will pursue to accomplish this goal include:

- Manage the planned process improvement efforts selected by ARA.
- Develop, implement, and track the ARA-selected process improvement plans within each directorate.
- Implement a mechanism to visibly demonstrate the results and benefits of the process improvement effort.

⑧ Major Procurement Program Goals

In support of FAA's enabling goals and strategies, ARA will:

Achieve the annual FAA-wide Major Procurement Program Goals (MPPG) established for Fiscal Years 2000 - 2004. For fiscal year ending September 30, 2001, FAA/ARA will achieve the following program goals:

At the prime contract level (Percent of total dollars awarded):

- Awards to small businesses (SB's) 25%.
- Awards to socially and economically disadvantaged businesses (SEDB's) 10%.

- Awards to small disadvantaged businesses (SDB's) 5%.
- Awards to women-owned businesses (WOB's) 5%.
- Awards to service-disabled veteran-owned small businesses 1%.

At the subcontract level (Percent of planned subcontracting dollars awarded to prime contractors):

- Subcontract awards to SB's 45%.
- Subcontract awards to SDB's 10%.
- Subcontract awards to WOB's 5%.
- Subcontract awards to service-disabled veteran-owned small businesses 1%.

Progress toward this performance goal will be measured by:

SEDB's, SDB's, and WOB's at the prime contract level.

- Percent of total procurement obligations awarded to SB's, SDB's, and WOB's at the subcontract level.

The strategies ARA will pursue to accomplish this goal include:

- Maintain the number of procurements awarded under the pilot Mentor-Protégé Program.
- Increase the number of FAA decision-makers who have SB, SEDB and WOB contracting and subcontracting goals in their

- Percent of total procurement obligations awarded to SB's,

personal performance plan and standards.

- Provide educational opportunities within FAA with respect to Small Business Utilization Program policy and guidance.
- Increase the total number of sampled procurements over \$100,000 that are coordinated with the appropriate Small Business.
- Maintain the total number of outreach events to DOT/DOT modes and the small business community (including WOB's, SEDB's, SDB's).

ABBREVIATIONS/ACRONYMS

AMS	Acquisition Management System
ARA	Associate Administrator for Research and Acquisitions
DOD	Department of Defense
DOT	Department of Transportation
F&E	Facilities and Equipment
FAA	Federal Aviation Administration
FOB	Federal Office Building
FY	Fiscal Year
GPS	Global Positioning System
IPDS	Integrated Product Development System
IPG	Integrated Process Group
IPT's	Integrated Product Teams
ISM	Integrated Schedule Management
ISS	Information System Security
IT	Information Technology
JRC	Joint Resource Council
MPPG	Major Procurement Program Goals
NAS	National Airspace System
R&D	Research and Development
R,E&D	Research, Engineering, and Development
SB's	Small Businesses
SDB's	Small Disadvantaged Businesses
SEDB's	Socially and Economically Disadvantaged Businesses
WOB's	Woman-Owned Businesses